



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,495	07/08/2003	Tomomi Kawase	9319S-000517	8947
27572	7590	11/15/2004	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			TADESSE, YEWEBDAR T	
			ART UNIT	PAPER NUMBER
			1734	

DATE MAILED: 11/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/615,495

Applicant(s)

KAWASE, TOMOMI

Examiner

Yewebdar T Tadesse

Art Unit

1734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 1-11, 14-23 and 26-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12, 13, 24 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 07/08/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of group III in the reply filed on 10/18/2004 is acknowledged. The traversal is on the ground(s) that all groups of claims are sufficiently related to each other. This is not found persuasive because

As shown in paragraph 2 of the restriction requirement (see page 2 of the restriction/election requirement mailed 10/4/2004), group I and group II are unrelated because Group I requires the division of the substrate into at least 2 regions and applying more liquid to one region than the other and Group II requires the use of an on/off jetting method with a non-circular substrate. Inventions of group I and III or II and III are related as process and apparatus, however they are distinct inventions, as shown in paragraphs 3 and 4 of the restriction requirement (see pages 2-3 of the restriction/election requirement mailed 10/4/2004), because the process as claimed can be practiced by hand whereas the apparatus requires a means of controlling liquid jet amount.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 1-8, 14-21, 22-23 and 26-32 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 10/18/2004.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 12-13 and 24-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Naka et al (US 5,935,331). As to claims 12 and 24, Naka et al discloses (see column 25, lines 49-64, Figs 22, 23 and 28) a liquid jetting apparatus for jetting a liquid to be applied to a substrate, comprising a droplet jet head having at least one nozzle (an ink jet head 604 having a plurality of nozzles 615a-615e); a jet amount control means for controlling a jet amount of the liquid from the nozzle so that the jet amount of the liquid to any one of at least two divided regions of a liquid coating region of the substrate is greater than a jet amount to another one of the at least two divided regions (thin-edge orifices 636 serving as a flow rate control member controlling the discharge amount of the nozzles toward the peripheral side of the substrate). Naka et al further discloses a spin coater (substrate holding base with a rotating motor 311) and a control means (307) controlling the moving device (306) for moving the ink jet head (304) or positioning the head at predetermined distances from the center of rotation of the substrate.

As to claims 13 and 25, in Naka et al liquid jetting apparatus (see Fig 23), the droplet jet head has a plurality of nozzles arranged in a line (nozzles arrayed in a row) constituting a nozzle train and an orientation angle of the plurality of nozzles (radial

Art Unit: 1734

direction of the nozzles or another which intersects the radial direction at a specified angle) varying in accordance with a distance from the center of rotation of the substrate (nozzle 315a disposed on the central side of the substrate and nozzle 351g disposed on the peripheral side of the substrate, wherein the nozzles are capable of having arrangement direction relative to a radial direction of the substrate varying according with a distance from the center of the rotation of the substrate).

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yewebdar T Tadesse whose telephone number is (571) 272-1238. The examiner can normally be reached on Monday-Friday 8:00 AM-4: 30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla can be reached on (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Yewebdar T-Tadesse



CHRIS FIORILLA
SUPERVISORY PATENT EXAMINER

AU 1734